

T S4/FULL/87-99

4/9/87 (Item 87 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0007816378 BIOSIS NO.: 199192062149
ELECTRON-MICROSCOPIC STUDY OF PLASTOME SALT-TOLERANT MUTANT OF SUNFLOWER
AUTHOR: BELETSKII YU D (Reprint); PRIKHOZHENKO E YA; KARNAUKHOVA T B;
SIZOVA L I
AUTHOR ADDRESS: RES INST BIOL, ROSTOV STATE UNIV, ROSTOV-NA-DONU, USSR**
USSR
JOURNAL: Tsitologiya i Genetika 25 (1): p3-5 1991
ISSN: 0564-3783
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: RUSSIAN

ABSTRACT: Ultrastructure of the salt-tolerant mutant of sunflower I-138 and its original form 3629 under conditions of salination has been studied. No deep destructive changes observed in the original wild line 3629 are found in the ultrastructure of plastids of mutant I-138.

DESCRIPTORS: MUTANT I-138 WILD LINE 3629 PLASTID ULTRASTRUCTURE SALINATION CONDITIONS

DESCRIPTORS:

MAJOR CONCEPTS: Agronomy--Agriculture; Cell Biology; Genetics; Physiology
BIOSYSTEMATIC NAMES: Compositae--Dicotyledones, Angiospermae,
Spermatophyta, Plantae

COMMON TAXONOMIC TERMS: Angiosperms; Dicots; Plants; Spermatophytes;
Vascular Plants

CONCEPT CODES:

01058 Microscopy - Electron microscopy
02504 Cytology - Plant
03504 Genetics - Plant
10011 Biochemistry - Physiological water studies
10069 Biochemistry studies - Minerals
51502 Plant physiology - Water relations
52514 Agronomy - Oil crops

BIOSYSTEMATIC CODES:

25840 Compositae

4/9/88 (Item 88 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0007802464 BIOSIS NO.: 199192048235
INDUCTION OF SALT TOLERANCE IN BASMATI RICE ORYZA-SATIVA L
AUTHOR: SIDDIQUE-SAJJAD M (Reprint)
AUTHOR ADDRESS: NUCL INST AGRIC BIOL, NIAB, FAISALABAD, PAKISTAN**PAKISTAN
JOURNAL: Pertanika 13 (3): p315-320 1990
ISSN: 0126-6128
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Seven relatively salt tolerant mutants were selected from segregating populations (M2) under saline sodic conditions. Further testing of mutants under different salt stresses proved the superiority

of one mutant namely RST-24. The mutant also proved its salt tolerance potential under both the gravel culture and saline-sodic field conditions. The mutant slightly surpassed parantal variety Basmati-370, for length-breadth ratio (milled kernel), elongation ratio and gel consistency. The yield and yield components and other quality traits of mutants and parent under salt stress are also presented.

DESCRIPTORS: MUTATION BREEDING YIELD ELONGATION RATIO MILLED KERNAL QUALITY GEL CONSISTENCY SODIC CONDITIONS

DESCRIPTORS:

MAJOR CONCEPTS: Agronomy--Agriculture; Biochemistry and Molecular Biophysics; Development; Foods; Genetics; Physiology; Soil Science

BIOSYSTEMATIC NAMES: Gramineae--Monocotyledones, Angiospermae, Spermatophyta, Plantae

COMMON TAXONOMIC TERMS: Angiosperms; Monocots; Plants; Spermatophytes; Vascular Plants

CONCEPT CODES:

03504 Genetics - Plant

10011 Biochemistry - Physiological water studies

10069 Biochemistry studies - Minerals

13506 Food technology - Milling technology

13510 Food technology - Cereal chemistry

51502 Plant physiology - Water relations

51510 Plant physiology - Growth, differentiation

52504 Agronomy - Grain crops

52805 Soil science - Physics and chemistry

BIOSYSTEMATIC CODES:

25305 Gramineae

4/9/89 (Item 89 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0006236458 BIOSIS NO.: 198886076379

SALT TOLERANCE OF RICE VARIETIES AND MUTANT STRAINS

AUTHOR: BARI G (Reprint); HAMID A

AUTHOR ADDRESS: ATOMIC ENERGY AGRIC RES CENT, TANDOJAM

JOURNAL: Pakistan Journal of Scientific and Industrial Research 31 (4): p 282-284 1988

ISSN: 0030-9885

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: A pot experiment was conducted to evaluate salt tolerance of two varieties of rice (*Oryza sativa*) Basmati-370 and IR6 and their four mutants evolved through mutation. Soil salinity levels were produced in 5 kg soil in pots by applying mixture of salts, containing 8 parts of Na₂SO₄, 6 parts of NaCl, 2 parts of CaCl₂, 2 parts of MgSO₄ and 1 part of NaHCO₃, at 0, 0.25, 0.50, 0.75 and 1.00% of soil (w/w), resulting in the following five levels, control (0.45), 2.85, 5.75, 7.85 and 11.40 ds/m EC of saturation extract. Under non-saline (control) conditions the grain and straw yields for varieties and mutants varied significantly. The most tolerant mutant strain (IR6-18) tolerated twice as much salinity as the most sensitive mutant strain (Bas-EF-29-2), and 50 percent reduction in grain yield occurred in two mutant strains at EC 4.45 and 2.25 ds/m, respectively.

DESCRIPTORS: ORYZA-SATIVA SOIL CHEMISTRY GRAIN YIELD STRAW YIELD CROP

INDUSTRY AGRICULTURE

DESCRIPTORS:

MAJOR CONCEPTS: Agronomy--Agriculture; Development; Genetics; Physiology; Reproduction; Soil Science

BIOSYSTEMATIC NAMES: Gramineae--Monocotyledones, Angiospermae, Spermatophyta, Plantae

COMMON TAXONOMIC TERMS: Angiosperms; Monocots; Plants; Spermatophytes; Vascular Plants

CONCEPT CODES:

03504 Genetics - Plant

10069 Biochemistry studies - Minerals

51502 Plant physiology - Water relations

51510 Plant physiology - Growth, differentiation

51512 Plant physiology - Reproduction

52504 Agronomy - Grain crops

52805 Soil science - Physics and chemistry

BIOSYSTEMATIC CODES:

25305 Gramineae

4/9/90 (Item 90 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0006157900 BIOSIS NO.: 198885126791

THE ROLE OF GLYCEROL IN OSMOTOLERANCE OF THE YEAST DEBARYOMYCES-HANSENII

AUTHOR: ANDRE L (Reprint); NILSSON A; ADLER L

AUTHOR ADDRESS: DEP MARINE MICROBIOL, BOTANICAL INST, CARL SKOTTSBERGS GATA 22, S-413 19 GOTEBORG, SWEDEN**SWEDEN

JOURNAL: Journal of General Microbiology 134 (3): p669-678 1988

ISSN: 0022-1287

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Transfer of growing cells of the salt-tolerant yeast Debaryomyces hansenii to media of higher salinity resulted in an increased production and intracellular accumulation of glycerol, which was proportional to the magnitude of the shift in salinity. Stress solutes other than NaCl, when added in iso-osmolar concentrations, promoted the accumulation of similar amounts of glycerol. Cells grown at high salinity rapidly lost glycerol when returned to media of lower salinity and the loss was greater when the cells were transferred to more dilute media. A mutant strain of D. hansenii showed poor glycerol production and was inhibited by NaCl at concentrations about half the maximum tolerated by the wild-type. Growth of this mutant occurred at otherwise inhibitory NaCl concentrations if the medium was supplemented with a low concentration of glycerol. The added glycerol was intracellularly accumulated to levels that increased with salinity and were only slightly lower than the corresponding wild-type levels. Glycerol additions above the growth promoting level had little effect on growth rate but caused substantial shortening of the lag phase. Osmoprotectants other than glycerol did not permit growth to occur. The mutant was isolated as a glycerol non-utilizer but displayed growth in glycerol media at increased NaCl concentrations.

REGISTRY NUMBERS: 56-81-5: GLYCEROL

DESCRIPTORS: SALINITY GROWTH ACCUMULATION

DESCRIPTORS:

MAJOR CONCEPTS: Development; Membranes--Cell Biology; Metabolism; Physiology

BIOSYSTEMATIC NAMES: Ascomycetes--Fungi, Plantae
COMMON TAXONOMIC TERMS: Fungi; Microorganisms; Nonvascular Plants; Plants
CHEMICALS & BIOCHEMICALS: GLYCEROL

CONCEPT CODES:

03504 Genetics - Plant
10060 Biochemistry studies - General
10069 Biochemistry studies - Minerals
10508 Biophysics - Membrane phenomena
13002 Metabolism - General metabolism and metabolic pathways
51502 Plant physiology - Water relations
51510 Plant physiology - Growth, differentiation
51519 Plant physiology - Metabolism
51520 Plant physiology - Translocation, accumulation

BIOSYSTEMATIC CODES:

15100 Ascomycetes

4/9/91 (Item 91 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)
(c) 2005 BIOSIS. All rts. reserv.

0005748014 BIOSIS NO.: 198784102163

**PEROXIDASE ISOENZYMES IN A SALT-TOLERANT PLASTID MUTANT OF THE SUNFLOWER
AND ITS HYBRID**

AUTHOR: BELETSKII YU D (Reprint); KARNAUKHOVA T B; SHEVYAKOVA N I

AUTHOR ADDRESS: RES BIOL INST, MA SUSLOV ROSTOV STATE UNIV, ROSTOV-NA-DONU,
USSR**USSR

JOURNAL: Fiziologiya Rastenii (Moscow) 33 (6): p1159-1165 1986

ISSN: 0015-3303

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: RUSSIAN

ABSTRACT: The total activity peroxidase and the isoenzyme pattern of its anode components were compared in the leaves of inbred sunflower line (3629), of the salt-tolerant plastid mutant Chlorina (I-138), of the varietal species "Mayak", and of the hybrid between the mutant and (I-138 .times. M) B2 cultivar. All the plants were grown with Na₂SO₄ or without it (the control). In the salt-tolerant line Chlorina and in the hybrid an anode isoenzyme with Rt 0.35-0.39 appeared at the stage of 1-2 pair leaves. This isoenzyme showed salt tolerance in in vitro treatments with NaCl (0.3-1.2%) or Na₂SO₄ (0.6-2.4%). In the hybrid, in which the plastidome consisted of mutant Chlorina (I-138) plastids and four-fifth of the nucleus contained the genetic material of the cultivar "Mayak", the activity of the salt-tolerant isoenzyme increased with Na₂SO₄ increase in the nutrient medium up to 2.4%. It is suggested that the changes in the activity of the salt-tolerant isoenzyme in the hybrid in response to salinization may indicate a regulatory role of the plastidome in relation to nuclear genes.

REGISTRY NUMBERS: 9003-99-0: PEROXIDASE; 7757-82-6: SODIUM SULFATE;
7647-14-5: SODIUM CHLORIDE

DESCRIPTORS: PLASTIDOME REGULATORY ROLE ENZYME ACTIVITY SODIUM SULFATE
SODIUM CHLORIDE

DESCRIPTORS:

MAJOR CONCEPTS: Agronomy--Agriculture; Enzymology--Biochemistry and
Molecular Biophysics; Genetics

BIOSYSTEMATIC NAMES: Compositae--Dicotyledones, Angiospermae,
Spermatophyta, Plantae

COMMON TAXONOMIC TERMS: Angiosperms; Dicots; Plants; Spermatophytes;

Vascular Plants

CHEMICALS & BIOCHEMICALS: PEROXIDASE; SODIUM SULFATE; SODIUM CHLORIDE
CONCEPT CODES:

03504 Genetics - Plant

10060 Biochemistry studies - General

10064 Biochemistry studies - Proteins, peptides and amino acids

10808 Enzymes - Physiological studies

51518 Plant physiology - Enzymes

52514 Agronomy - Oil crops

BIOSYSTEMATIC CODES:

25840 Compositae

4/9/92 (Item 92 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

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0005685975 BIOSIS NO.: 198784040124

A SALT-SENSITIVE MUTANT OF DUNALIELLA-TERTIOLECTA A ROLE OF CARBONIC ANHYDRASE

AUTHOR: BROWN A D (Reprint); GOYAL A; LARSEN H; LILLEY R M

AUTHOR ADDRESS: DEP BIOL, UNIV WOLLONGONG, NSW 2500, AUSTRALIA**AUSTRALIA

JOURNAL: Archives of Microbiology 147 (4): p309-314 1987

ISSN: 0302-8933

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: A mutant of Dunaliella tertiolecta produced by treatment with methyl nitrosoguanidine and designated HL25/8, grew more slowly than the parent strain under all experimental conditions and was conspicuously less tolerant of NaCl. Total photosynthetic activity (C-fixation and O₂ evolution) was less in HL25/8 than in the parent strain and was affected differently by [NaCl] in the two strains. Various growth characteristics indicated that the mutant had a greater need than the parent strain for CO₂ as distinct from HCO₃⁻ as a source of carbon. Gaseous CO₂ extended the range of salt tolerance of the mutant. For example, HL25/8 could not sustain growth at 1.02 NaCl in a conventional buffered medium containing bicarbonate as the sole carbon source but could do so if the medium were sparged with a CO₂/air mixture. The mutant strain has a lower activity of carbonic anhydrase on the cell surface than the parent D. tertiolecta. Moreover, the two strains differ sharply in the responses of their surface carbonic anhydrase activity to salinity of the growth medium. Increasing sodium chloride concentration above 0.17 M raised activity of the enzyme in the parent strain but decreased it in HL25/8. We conclude that the low activity of carbonic anhydrase and its response to salinity can largely, but perhaps not fully, explain the diminished salt tolerance of the mutant. A plate counting method applicable to Dunaliella is described.

REGISTRY NUMBERS: 9001-03-0: CARBONIC ANHYDRASE

DESCRIPTORS: TOTAL PHOTOSYNTHETIC ACTIVITY

DESCRIPTORS:

MAJOR CONCEPTS: Cell Biology; Enzymology--Biochemistry and Molecular Biophysics; Genetics; Metabolism; Nutrition

BIOSYSTEMATIC NAMES: Chlorophyta--Algae, Plantae

COMMON TAXONOMIC TERMS: Algae; Microorganisms; Nonvascular Plants; Plants

CHEMICALS & BIOCHEMICALS: CARBONIC ANHYDRASE

CONCEPT CODES:

02504 Cytology - Plant

03504 Genetics - Plant
10012 Biochemistry - Gases
10060 Biochemistry studies - General
10069 Biochemistry studies - Minerals
10808 Enzymes - Physiological studies
13202 Nutrition - General studies, nutritional status and methods
51504 Plant physiology - Nutrition
51506 Plant physiology - Photosynthesis
51518 Plant physiology - Enzymes
51519 Plant physiology - Metabolism
51524 Plant physiology - Apparatus and methods
BIOSYSTEMATIC CODES:
13300 Chlorophyta

4/9/93 (Item 93 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0004707766 BIOSIS NO.: 198580016661
GLYCEROL METABOLISM AND OSMOREGULATION IN THE SALT-TOLERANT YEAST DEBARYOMYCES-HANSENII
AUTHOR: ADLER L (Reprint); BLOMBERG A; NILSON A
AUTHOR ADDRESS: DEP MARINE MICROBIOL, BOTANICAL INST, S-41319 GOTEBORG,
SWEDEN**SWEDEN
JOURNAL: Journal of Bacteriology 162 (1): p300-306 1985
ISSN: 0021-9193
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A glycerol-nonutilizing mutant of the salt-tolerant yeast *D. hansenii* was isolated. When subjected to salt stress the mutant produced glycerol, and the internal level of glycerol increased linearly in proportion to increases of external salinity as in the wild-type strain. At increased salinity the mutant showed a more pronounced decrease of growth rate and growth yield, and lost more glycerol to the surrounding medium than did the wild type. Uptake experiments showed glycerol to be accumulated against a strong concentration gradient, and both strains displayed similar kinetic parameters for the uptake of glycerol. An examination of enzyme activities of the glycerol metabolism revealed that the apparent *Km* of the sn-glycerol 3-phosphate dehydrogenase (EC 1.1.99.5) was increased 330-fold for sn-glycerol 3-phosphate in the mutant. Based on the findings, a scheme for the pathways of glycerol metabolism is suggested.

REGISTRY NUMBERS: 56-81-5: GLYCEROL; 9001-49-4Q: GLYCEROL-3-PHOSPHATE DEHYDROGENASE; 9075-65-4Q: GLYCEROL-3-PHOSPHATE DEHYDROGENASE; 9001-49-4: EC-1.1.99.5

DESCRIPTORS: SM GLYCEROL-3-PHOSPHATE DEHYDROGENASE EC-1.1.99.5 MUTANT SALINITY GROWTH RATE ACCUMULATION UPTAKE KINETICS PATHWAY

DESCRIPTORS:

MAJOR CONCEPTS: Development; Enzymology--Biochemistry and Molecular Biophysics; Genetics; Metabolism; Methods and Techniques; Physiology

BIOSYSTEMATIC NAMES: Ascomycetes--Fungi, Plantae

COMMON TAXONOMIC TERMS: Fungi; Microorganisms; Nonvascular Plants; Plants

CHEMICALS & BIOCHEMICALS: GLYCEROL; GLYCEROL-3-PHOSPHATE DEHYDROGENASE; GLYCEROL-3-PHOSPHATE DEHYDROGENASE; EC-1.1.99.5

CONCEPT CODES:

03504 Genetics - Plant

10011 Biochemistry - Physiological water studies
10064 Biochemistry studies - Proteins, peptides and amino acids
10068 Biochemistry studies - Carbohydrates
10069 Biochemistry studies - Minerals
10806 Enzymes - Chemical and physical
10808 Enzymes - Physiological studies
13004 Metabolism - Carbohydrates
32000 Microbiological apparatus, methods and media
51502 Plant physiology - Water relations
51510 Plant physiology - Growth, differentiation
51518 Plant physiology - Enzymes
51519 Plant physiology - Metabolism
51520 Plant physiology - Translocation, accumulation

BIOSYSTEMATIC CODES:

15100 Ascomycetes

4/9/94 (Item 94 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

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0004267541 BIOSIS NO.: 198478002948

ELECTRO PHYSIOLOGICAL RESPONSES OF LABELLAR CHEMO SENSILLA OF A WILD TYPE
AND A SALT TOLERANT MUTANT LOT-94 OF DROSOPHILA-MELANOGASTER DIPTERA
DROSOPHILIDAE

AUTHOR: CRNJR R (Reprint); CANCEDDA A; ANGIOY A M; LISCIA A; PIETRA P

AUTHOR ADDRESS: ISTITUTO DI FISIOLOGIA GENERALE DELL'UNIVERSITA, VIALE FRA
IGNAZIO 38, 09100 CAGLIARI, ITALIA**ITALY

JOURNAL: Monitore Zoologico Italiano 17 (4): p387-394 1983

ISSN: 0026-9786

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: The labellar chemosensilla of a wild type strain (QA) and a salt tolerant mutant (Lot-94) of *D. melanogaster* (Meigen) (Diptera, Drosophilidae) were tested electrophysiologically in order to ascertain whether the altered feeding reflex response of the mutant is related to differences at the chemoreceptor or within the CNS. Four chemosensory units were identified in each chemosensillum of both strains: one unit was most sensitive to NaCl (M1) and a different one to sucrose (M2). The analysis of the spike frequencies of the M1 and M2 units in QA and Lot-94 flies indicates that the altered feeding behavior observed in the mutant probably depends on variations within the CNS.

REGISTRY NUMBERS: 7647-14-5: SODIUM CHLORIDE; 57-50-1: SUCROSE

DESCRIPTORS: CENTRAL NERVOUS SYSTEM FEEDING BEHAVIOR SODIUM CHLORIDE

SUCROSE/

DESCRIPTORS:

MAJOR CONCEPTS: Behavior; Genetics; Metabolism; Nervous System--Neural
Coordination; Nutrition; Physiology

BIOSYSTEMATIC NAMES: Diptera--Insecta, Arthropoda, Invertebrata, Animalia

COMMON TAXONOMIC TERMS: Animals; Arthropods; Insects; Invertebrates

CHEMICALS & BIOCHEMICALS: SODIUM CHLORIDE; SUCROSE

CONCEPT CODES:

03506 Genetics - Animal

07003 Behavioral biology - Animal behavior

10068 Biochemistry studies - Carbohydrates

10069 Biochemistry studies - Minerals

10504 Biophysics - Methods and techniques

13004 Metabolism - Carbohydrates
13010 Metabolism - Minerals
13202 Nutrition - General studies, nutritional status and methods
20501 Nervous system - General and methods
20504 Nervous system - Physiology and biochemistry
64076 Invertebrata: comparative, experimental morphology, physiology and pathology - Insecta: physiology

BIOSYSTEMATIC CODES:

75314 Diptera

4/9/95 (Item 95 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0004077672 BIOSIS NO.: 198426076599
A PRODUCTIVE EARLY SALT TOLERANT IR-8 MUTANT
AUTHOR: KAUL M L H (Reprint); SHARMA K K
AUTHOR ADDRESS: BOTANY DEP, KURUKSHETRA UNIV, KURUKSHETRA 132 119, INDIA**
INDIA
JOURNAL: Current Science (Bangalore) 52 (17): p819-821 1983
ISSN: 0011-3891
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: ENGLISH
DESCRIPTORS: RICE PROTEIN CONTENT GROWTH SEED PRODUCTION GERMINATION
BREEDING
DESCRIPTORS:
MAJOR CONCEPTS: Agronomy--Agriculture; Biochemistry and Molecular
Biophysics; Development; Genetics
BIOSYSTEMATIC NAMES: Gramineae--Monocotyledones, Angiospermae,
Spermatophyta, Plantae
COMMON TAXONOMIC TERMS: Angiosperms; Monocots; Plants; Spermatophytes;
Vascular Plants

CONCEPT CODES:

03504 Genetics - Plant
10064 Biochemistry studies - Proteins, peptides and amino acids
13224 Nutrition - Proteins, peptides and amino acids
51510 Plant physiology - Growth, differentiation
51512 Plant physiology - Reproduction
51522 Plant physiology - Chemical constituents
52504 Agronomy - Grain crops

BIOSYSTEMATIC CODES:

\ 25305 Gramineae

4/9/96 (Item 96 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0003884000 BIOSIS NO.: 198375067943
GROWTH CHARACTERISTICS AND STABILITY OF TOLERANCE OF CITRUS CITRUS-SINENSIS CULTIVAR SHAMOUTI CALLUS CELLS SUBJECTED TO SODIUM CHLORIDE STRESS
AUTHOR: BEN-HAYYIM G (Reprint); KOCHBA J
AUTHOR ADDRESS: INST HORTICULTURE, AGRIC RESEARCH ORGANIZATION, VOLCANI
CENTER, PO BOX 6, BET-DAGAN, ISRAEL**ISRAEL
JOURNAL: Plant Science Letters 27 (1): p87-94 1982
ISSN: 0304-4211
DOCUMENT TYPE: Article
RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Callus cells of *C. sinensis* Osb cv. Shamouti capable of growing in the presence of 0.2 M NaCl were obtained by exposure of the cultured cells to a medium containing salt. The growth curve of the selected salt-tolerant line (R-10) in the presence of NaCl showed a prolonged lag period, slightly slower rate of increase in fresh weight and .apprx. 50% yield as compared with the situation in the absence of salt. Non-selected cells (L-5) did not grow in the presence of 0.2 M NaCl. The increased tolerance for salt of the R-10 cell line was retained after 4 consecutive transfers in medium without salt. This stability indicates that during the selection procedure a true genetic variant was isolated. R-10 cells selected for tolerance towards NaCl were also tolerant to other Na salts.

REGISTRY NUMBERS: 7647-14-5: SODIUM CHLORIDE

DESCRIPTORS: YIELD SELECTION MUTANT

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Development; Genetics; Physiology; Reproduction

BIOSYSTEMATIC NAMES: Rutaceae--Dicotyledones, Angiospermae, Spermatophyta, Plantae

COMMON TAXONOMIC TERMS: Angiosperms; Dicots; Plants; Spermatophytes; Vascular Plants

CHEMICALS & BIOCHEMICALS: SODIUM CHLORIDE

CONCEPT CODES:

03504 Genetics - Plant

10011 Biochemistry - Physiological water studies

10069 Biochemistry studies - Minerals

32500 Tissue culture, apparatus, methods and media

51000 Morphology, anatomy and embryology of plants

51502 Plant physiology - Water relations

51510 Plant physiology - Growth, differentiation

51512 Plant physiology - Reproduction

51524 Plant physiology - Apparatus and methods

53004 Horticulture - Tropical, subtropical fruits and plantation crops

BIOSYSTEMATIC CODES:

26685 Rutaceae

4/9/97 (Item 97 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

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0003518059 BIOSIS NO.: 198273021986

SALT TOLERANCE OF SOME INDUCED MUTANTS OF TRITICUM-AESTIVUM CULTIVAR HD-2009 WHEAT

AUTHOR: KUMAR D (Reprint); CHAUHAN R P S; SINGH R V

AUTHOR ADDRESS: HARYANA AGRIC UNIV, REGIONAL RES STN, BAWAL, HARYANA, 123 501**INDIA

JOURNAL: Indian Journal of Agricultural Sciences 51 (7): p475-479 1981

ISSN: 0019-5022

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Mutant 'Bhp 28' derived from 'HD 2009' wheat (*T. aestivum* Linn. emend. Theil.) gave significantly higher yield, and was more salt-tolerant. It had more protein and K, but less Mg, Fe and Mn than the parent. It had bold and amber grains in contrast to medium-bold and opaque grains in 'HD 2009'.

REGISTRY NUMBERS: 7440-09-7: POTASSIUM; 7439-95-4: MAGNESIUM; 7439-89-6: IRON; 7439-96-5: MANGANESE

DESCRIPTORS: YIELD PROTEIN POTASSIUM MAGNESIUM IRON MANGANESE

DESCRIPTORS:

MAJOR CONCEPTS: Agronomy--Agriculture; Biochemistry and Molecular Biophysics; Development; Genetics; Physiology

BIOSYSTEMATIC NAMES: Gramineae--Monocotyledones, Angiospermae, Spermatophyta, Plantae

COMMON TAXONOMIC TERMS: Angiosperms; Monocots; Plants; Spermatophytes; Vascular Plants

CHEMICALS & BIOCHEMICALS: POTASSIUM; MAGNESIUM; IRON; MANGANESE

CONCEPT CODES:

03504 Genetics - Plant

10064 Biochemistry studies - Proteins, peptides and amino acids

10069 Biochemistry studies - Minerals

13010 Metabolism - Minerals

13012 Metabolism - Proteins, peptides and amino acids

51502 Plant physiology - Water relations

51510 Plant physiology - Growth, differentiation

51519 Plant physiology - Metabolism

51522 Plant physiology - Chemical constituents

52504 Agronomy - Grain crops

BIOSYSTEMATIC CODES:

25305 Gramineae

4/9/98 (Item 1 from file: 10)

DIALOG(R)File 10:AGRICOLA

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4132561 43630835 Holding Library: AGL

The cotton GhNHX1 gene encoding a novel putative tonoplast Na+/H+ antiporter plays an important role in salt stress

Wu, C.A. Yang, G.D.; Meng, Q.W.; Zheng, C.C.

Plant and cell physiology. 2004 May, v. 45, no. 5 p. 600-607.

ISSN: 0032-0781

DNAL CALL NO: 450 P699

Language: English

Includes references

Place of Publication: :::

Document Type: Article

A cDNA clone was isolated from cotton (*Gossypium hirsutum*) cDNA library and characterized with regard to its sequence, regulation in response to salt stress and functions in yeast mutants and transgenic tobacco plants. The clone, designated as GhNHX1, contains 2,485 nucleotides with an open reading frame of 1,629 nucleotides, and the deduced amino acid sequence showed high identities with other plant vacuolar-type Na+/H+ antiporters. Northern blot analysis indicated that the mRNA accumulation of GhNHX1 was strongly induced by salt stress and abscisic acid in cotton seedlings. The expression of GhNHX1 in yeast Na+/H+ antiporter mutant showed function complementation. The transgenic tobacco plants overexpressing GhNHX1 also had higher salt tolerance than the wild-type plants. The salt-induced mRNA level of GhNHX1 was 3 and 7 times higher in the salt-tolerant cotton cultivar ZM3 than those in the salt-sensitive cotton cultivars ZMS17 and ZMS12, respectively. Together, these results suggest that the products of the novel gene, GhNHX1, function as a tonoplast Na+/H+ antiporter and play an important role in salt tolerance of cotton.

DESCRIPTORS: *Gossypium hirsutum*; cotton; fiber crops; cultivars; tonoplast; plant proteins; antiporters; cloning (DNA); complementary DNA;

DNA libraries; messenger RNA; gene expression regulation; salt stress; abscisic acid; *Saccharomyces cerevisiae*; bakers yeast; genetic complementation; *Nicotiana tabacum*; tobacco; transgenic plants; gene overexpression; sequence alignment; amino acid sequences;

Identifiers: sodium-hydrogen antiporter; molecular sequence data

Section Headings: F600 PLANT PHYSIOLOGY AND BIOCHEMISTRY; F200 PLANT BREEDING

4/9/99 (Item 2 from file: 10)

DIALOG(R)File 10:AGRICOLA

(c) format only 2005 Dialog. All rts. reserv.

4028681 23300767 Holding Library: AGL

Characterization of salinity-tolerant mutant of *Anabaena doliolum* exhibiting multiple stress tolerance

Singh, D.P. Kshatriya, K.

New York, N.Y. : Springer-Verlag New York, Inc.

Current microbiology. Sept 2002. v. 45 (3) p. 165-170.

ISSN: 0343-8651

DNAL CALL NO: QR1.C78

Language: English

Includes references

Place of Publication: New York

Subfile: IND; OTHER US (NOT EXP STN, EXT, USDA; SINCE 12/76);

Document Type: Article

Abstract: Results show that an isolated mutant of the cyanobacterium *Anabaena doliolum* is a fast-growing strain. It exhibits approximately twofold higher NaCl tolerance than the wild type. It also reveals cross-resistance against the herbicide 3-(3,4-dichlorophenyl)-1,1-dimethylurea (DCMU), drug bacitracin, and LiCl. Further, an improved LiCl tolerance property of both the mutant and wild-type strains at high concentration of NaCl (40 mM) may be interpreted in terms of competitive inhibition of the Li⁺ uptake by Na⁺ ions, whereas bacitracin resistance in these organisms is described to be the result of an alteration in the drug transporting channels of membrane. The multiple stress tolerance property of the *A. doliolum* may be attributed to altered membrane characteristics in the mutant strain, leading to reduced intake of such toxicants.

DESCRIPTORS: *anabaena doliolum*; salt tolerance; stress; tolerance; salinity; sodium chloride; lithium chloride; bacitracin; diuron; growth rate; kinetics; pleiotropy; mutants;

Section Headings: J100 SOIL BIOLOGY; F500 PLANT NUTRITION

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3/3/1

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

18362595 PMID: 15831376

Recent advances in engineering plant tolerance to abiotic stress: achievements and limitations.

Vinocur Basia; Altman Arie

The Robert H Smith Institute of Plant Sciences and Genetics in Agriculture and the Otto Warburg Center for Agricultural Biotechnology, The Hebrew University of Jerusalem, PO Box 12, Rehovot 76100, Israel.

Current opinion in biotechnology (England) Apr 2005, 16 (2) p123-32,
ISSN 0958-1669 Journal Code: 9100492

Publishing Model Print

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/2

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

18254123 PMID: 16053313

DNA-Driven Focusing for Protein-DNA Binding Assays Using Capillary Electrophoresis.

Wang Hailin; Lu Meiling; Le X Chris

Department of Public Health Sciences, Faculty of Medicine and Dentistry, and Department of Chemistry, University of Alberta, Edmonton, Alberta T6G 2G3, Canada.

Analytical chemistry (United States) Aug 1 2005, 77 (15) p4985-90,
ISSN 0003-2700 Journal Code: 0370536

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: In Data Review

3/3/3

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

18230240 PMID: 15791452

Analysis of salt-stress-inducible ESTs isolated by PCR-subtraction in salt-tolerant rice.

Shiozaki Noriko; Yamada Mika; Yoshida Yoshiko

Life Science Research Center, Central Research Laboratory, Hitachi Ltd., Hatoyama, Saitama, 350-0395, Japan.

TAG. Theoretical and applied genetics. Theoretische und angewandte Genetik (Germany) May 2005, 110 (7) p1177-86, ISSN 0040-5752
Journal Code: 0145600

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/4

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

17794710 PMID: 15691746

Co-expression of the Na(+)/H(+) -antiporter and H(+) -ATPase genes of the salt-tolerant yeast *Zygosaccharomyces rouxii* in *Saccharomyces cerevisiae*.

Watanabe Yasuo; Oshima Naoko; Tamai Youichi
Department of Biological Resources, Faculty of Agriculture, National University Corporation Ehime University, Matsuyama, Ehime 790-8566, Japan.
watanabe@agr.ehime-u.ac.jp

FEMS yeast research (Netherlands) Feb 2005, 5 (4-5) p411-7, ISSN 1567-1356 Journal Code: 101085384

Publishing Model Print

Document type: Evaluation Studies; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/5

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

17774782 PMID: 15656983

The OsLti6 genes encoding low-molecular-weight membrane proteins are differentially expressed in rice cultivars with contrasting sensitivity to low temperature.

Morsy Mustafa R; Almutairi Abeer M; Gibbons James; Yun Song Joon; de Los Reyes Benildo G

Department of Crop, Soil and Environmental Sciences, University of Arkansas, Fayetteville, AR 72701, USA.

Gene (Netherlands) Jan 3 2005, 344 p171-80, ISSN 0378-1119
Journal Code: 7706761

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/6

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

17708890 PMID: 15843354

[Cloning and structure analysis of zinc finger protein gene in *populus Euphratica oliver*]

Wang Jun-Ying; Yin Wei-Lun; Xia Xin-Li
College of Biology Science and Technology, Beijing Forestry University, Beijing 100083, China. cauhzq@sina.com

Yi Chuan (China) Mar 2005, 27 (2) p245-8, ISSN 0253-9772
Journal Code: 9436478

Publishing Model Print

Document type: Journal Article

Languages: CHINESE

Main Citation Owner: NLM

Record type: In Process

3/3/7

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

16461370 PMID: 15604658

Tissue-specific expression and functional complementation of a yeast potassium-uptake mutant by a salt-induced ice plant gene mcSKD1.

Jou Yingzzy; Chou Pin Hsing; He Mengchun; Hung Yuhui; Yen Hungchen Emilie
Department of Life Sciences, National Chung-Hsing University, Taiwan.
Plant molecular biology (Netherlands) Apr 2004, 54 (6) p881-93,
ISSN 0167-4412 Journal Code: 9106343

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/8

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

16401211 PMID: 15466233

Uncoupling the effects of abscisic acid on plant growth and water relations. Analysis of stol1/nced3, an abscisic acid-deficient but salt stress-tolerant mutant in Arabidopsis.

Ruggiero Bruno; Koiwa Hisashi; Manabe Yuzuki; Quist Tanya M; Inan Gunsu;
Saccardo Franco; Joly Robert J; Hasegawa Paul M; Bressan Ray A; Maggio
Albino

Center for Plant Environmental Stress Physiology, Purdue University, West
Lafayette, Indiana 47907-1165, USA.

Plant physiology (United States) Oct 2004, 136 (2) p3134-47, ISSN
0032-0889 Journal Code: 0401224

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/9

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

16167844 PMID: 15493142

[Study on gene expression of Tamarix under NaHCO3 stress using SSH technology]

Yang Chuan-Ping; Wang Yu-Cheng; Liu Gui-Feng; Jiang Jing
Forest Resource and Environment College, Northeast Forestry University,
Harbin 150040, China. yangcp@mail.nefu.edu.cn

Yi chuan xue bao = Acta genetica Sinica (China) Sep 2004, 31 (9)
p926-33, ISSN 0379-4172 Journal Code: 7900784

Publishing Model Print

Document type: Journal Article ; English Abstract

Languages: CHINESE

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/10

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

16079390 PMID: 15247369

Salt cress. A halophyte and cryophyte *Arabidopsis* relative model system and its applicability to molecular genetic analyses of growth and development of extremophiles.

Inan Gunsu; Zhang Quan; Li Pinghua; Wang Zenglan; Cao Ziyi; Zhang Hui; Zhang Changqing; Quist Tanya M; Goodwin S Mark; Zhu Jianhua; Shi Huazhong; Damsz Barbara; Charbaji Tarif; Gong Qingqiu; Ma Shisong; Fredricksen Mark; Galbraith David W; Jenks Matthew A; Rhodes David; Hasegawa Paul M; Bohnert Hans J; Joly Robert J; Bressan Ray A; Zhu Jian-Kang

Center for Plant Environmental Stress Physiology, Purdue University, West Lafayette, Indiana 47907-2010, USA.

Plant physiology (United States) Jul 2004, 135 (3) p1718-37, ISSN 0032-0889 Journal Code: 0401224

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/11

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

16028669 PMID: 14704136

Transcript identification and profiling during salt stress and recovery of *Populus euphratica*.

Gu Ruisheng; Fonseca Sandra; Puskas Laszlo G; Hackler Laszlo; Zvara Agnes; Duids Denes; Pais Maria S

Laboratory of Plant Biotechnology, ICAT, Campo Grande, 1749-016, Lisbon, Portugal. rsgu@icat.fc.ul.pt

Tree physiology (Canada) Mar 2004, 24 (3) p265-76, ISSN 0829-318X
Journal Code: 100955338

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: In Process

3/3/12

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

15438826 PMID: 15287875

Isolation of salt-sensitive mutants from *Sinorhizobium meliloti* and characterization of genes involved in salt tolerance.

Wei W; Jiang J; Li X; Wang L; Yang S S

Department of Microbiology, College of Biological Sciences, China Agricultural University, Beijing, PR China.

Letters in applied microbiology (England) 2004, 39 (3) p278-83,
ISSN 0266-8254 Journal Code: 8510094

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/13

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

15327961 PMID: 15128034

Transcriptome changes in foxtail millet genotypes at high salinity: identification and characterization of a PHGPX gene specifically upregulated by NaCl in a salt-tolerant line.

Sreenivasulu Nese; Miranda Manoela; Prakash Harischandra Sripathy; Wobus Ulrich; Weschke Winfriede

Institut fur Pflanzengenetik und Kulturpflanzenforschung, 06466 Gatersleben, Germany.

Journal of plant physiology (Germany) Apr 2004, 161 (4) p467-77,
ISSN 0176-1617 Journal Code: 9882059

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/14

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

15250251 PMID: 15004278

CBF2/DREB1C is a negative regulator of CBF1/DREB1B and CBF3/DREB1A expression and plays a central role in stress tolerance in *Arabidopsis*.

Novillo Fernando; Alonso Jose M; Ecker Joseph R; Salinas Julio
Departamento de Biotecnologia, Instituto Nacional de Investigacion y
Tecnologia Agraria y Alimentaria, Carretera de la Coruna, Kilometro 7,
28040 Madrid, Spain.

Proceedings of the National Academy of Sciences of the United States of
America (United States) Mar 16 2004, 101 (11) p3985-90, ISSN
0027-8424 Journal Code: 7505876

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/15

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

15214304 PMID: 14754922

Effect of salt and osmotic stresses on the expression of genes for the vacuolar H⁺-pyrophosphatase, H⁺-ATPase subunit A, and Na⁺/H⁺ antiporter from barley.

Fukuda Atsunori; Chiba Kazuhiro; Maeda Miki; Nakamura Atsuko; Maeshima Masayoshi; Tanaka Yoshiyuki

National Institute of Agrobiological Sciences, Kannondai 2-1-2, Tsukuba,
Ibaraki 305-8602, Japan. fukuda@affrc.go.jp

Journal of experimental botany (England) Mar 2004, 55 (397) p585-94,
ISSN 0022-0957 Journal Code: 9882906

Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/16

DIALOG(R)File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

15105188 PMID: 14665459

pH response transcription factor PacC controls salt stress tolerance and expression of the P-Type Na^+ -ATPase Ena1 in *Fusarium oxysporum*.

Caracuel Zaira; Casanova Carlos; Roncero M Isabel G; Di Pietro Antonio; Ramos Jose

Departamento de Genetica, Universidad de Cordoba, Cordoba, Spain.

Eukaryotic cell (United States) Dec 2003, 2 (6) p1246-52, ISSN

1535-9778 Journal Code: 101130731

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/17

DIALOG(R)File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

15011870 PMID: 14555476

Regulation of ENA1 Na^+ -ATPase gene expression by the Ppz1 protein phosphatase is mediated by the calcineurin pathway.

Ruiz Amparo; Yenush Lynne; Arino Joaquin

Departament de Bioquimica i Biologia Molecular, Universitat Autonoma de Barcelona, Bellaterra 08193, Barcelona, Spain.

Eukaryotic cell (United States) Oct 2003, 2 (5) p937-48, ISSN

1535-9778 Journal Code: 101130731

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/18

DIALOG(R)File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14866060 PMID: 12669200

A new AOX homologous gene OsIM1 from rice (*Oryza sativa L.*) with an alternative splicing mechanism under salt stress.

Kong Jin; Gong Ji-Ming; Zhang Zhi-Gang; Zhang Jin-Song; Chen Shou-Yi
Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing 100101, China.

TAG. Theoretical and applied genetics. Theoretische und angewandte Genetik (Germany) Jul 2003, 107 (2) p326-31, ISSN 0040-5752
Journal Code: 0145600

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/19

DIALOG(R)File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14856705 PMID: 12834272

A root-specific O-methyltransferase gene expressed in salt-tolerant barley.

Sugimoto Manabu; Okada Yoshihiro; Sato Kazuhiro; Ito Kazutoshi; Takeda Kazuyoshi

Laboratory of Biochemistry, Research Institute for Bioresources, Okayama University, Kurashiki, Okayama 710-0046, Japan. manabus@rib.okayama-u.ac.jp
Bioscience, biotechnology, and biochemistry (Japan) May 2003, 67 (5) p966-72, ISSN 0916-8451 Journal Code: 9205717

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/20

DIALOG(R)File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14795935 PMID: 12758034

Plants pass the salt.

Ward John M; Hirsch Kendal D; Sze Heven

Department of Plant Biology, University of Minnesota, 250 Bioscience Center, 1445 Gortner Ave, St Paul, MN 55108-1095, USA. jward@tc.umn.edu
Trends in plant science (England) May 2003, 8 (5) p200-1, ISSN 1360-1385 Journal Code: 9890299

Publishing Model Print

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/21

DIALOG(R)File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14704049 PMID: 12646496

Na⁺ tolerance and Na⁺ transport in higher plants.

Tester Mark; Davenport Romola

Department of Plant Sciences, University of Cambridge, Downing St, Cambridge CB2 3EA, UK. mat10@cam.ac.uk
Annals of botany (England) Apr 2003, 91 (5) p503-27, ISSN 0305-7364
Journal Code: 0372347

Publishing Model Print

Document type: Journal Article; Review

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/22

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14676992 PMID: 12609047

OsDREB genes in rice, *Oryza sativa* L., encode transcription activators that function in drought-, high-salt- and cold-responsive gene expression.
Dubouzet Joseph G; Sakuma Yoh; Ito Yusuke; Kasuga Mie; Dubouzet Emilyn G; Miura Setsuko; Seki Motoaki; Shinozaki Kazuo; Yamaguchi-Shinozaki Kazuko
Biological Resources Division, Japan International Research Center for Agricultural Sciences (JIRCAS), 1-1 Ohwashi, Tsukuba, Ibaraki 305-8686, Japan.

Plant journal - for cell and molecular biology (England) Feb 2003, 33 (4) p751-63, ISSN 0960-7412 Journal Code: 9207397

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/23

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14671369 PMID: 12602892

Salinity stress-tolerant and -sensitive rice (*Oryza sativa* L.) regulate AKT1-type potassium channel transcripts differently.
Goldack Dortje; Quigley Francoise; Michalowski Christine B; Kamasani Uma R; Bohnert Hans J

Department of Biochemistry, University of Arizona, Tucson, AZ 85721, USA.

Plant molecular biology (Netherlands) Jan 2003, 51 (1) p71-81, ISSN 0167-4412 Journal Code: 9106343

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/24

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14667439 PMID: 12595990

Isolation and expression analysis of salt stress-associated ESTs from contrasting rice cultivars using a PCR-based subtraction method.

Sahi C; Agarwal M; Reddy M K; Sopory S K; Grover A
Department of Plant Molecular Biology, University of Delhi South Campus, New Delhi - 110021, India.

TAG. Theoretical and applied genetics. Theoretische und angewandte Genetik (Germany) Feb 2003, 106 (4) p620-8, ISSN 0040-5752
Journal Code: 0145600

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/25

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14657855 PMID: 12582847

Salt-tolerant mutants in glycophytic salinity response (GSR) genes in Catharanthus roseus.

Rai S P; Luthra R; Kumar S
Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow-226 015, India.

TAG. Theoretical and applied genetics. Theoretische und angewandte Genetik (Germany) Jan 2003, 106 (2) p221-30, ISSN 0040-5752
Journal Code: 0145600

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/26

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14621142 PMID: 12469134

Overexpression of a plasma membrane Na^+/H^+ antiporter gene improves salt tolerance in *Arabidopsis thaliana*.

Shi Huazhong; Lee Byeong-ha; Wu Shaw-Jye; Zhu Jian-Kang
Department of Plant Sciences, University of Arizona, Tucson, AZ 85721, USA.

Nature biotechnology (United States) Jan 2003, 21 (1) p81-5, ISSN 1087-0156 Journal Code: 9604648

Contract/Grant No.: 1GM59138; GM; NIGMS

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/27

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14574000 PMID: 12592710

Cloning and molecular characterization of the salt-regulated jojoba ScRab cDNA encoding a small GTP-binding protein.

Mizrahi-Aviv Ela; Mills David; Benzioni Aliza; Bar-Zvi Dudy
Department of Life Sciences, Doris and Bertie Center for Bioenergetics in Life Sciences, Ben-Gurion University, Beer-Sheva 84105, Israel.

DNA sequence - the journal of DNA sequencing and mapping (England) Oct 2002, 13 (5) p295-300, ISSN 1042-5179 Journal Code: 9107800

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/28

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14564002 PMID: 12549005

[Selection and identification of salt tolerant line of sainfoin from the seeds of first post-flight plants]

Xu Y Y; Wang M G; Jia J F

Institute of Botany, Chinese Academy of Sciences, Beijing 100093.

Shi yan sheng wu xue bao = Journal of experimental biology (China) Mar 2001, 34 (1) p11-5, ISSN 0001-5334 Journal Code: 0413570

Publishing Model Print

Document type: Journal Article ; English,Abstract

Languages: CHINESE

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/29

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14369630 PMID: 12198193

Expression of mangrove allene oxide cyclase enhances salt tolerance in Escherichia coli, yeast, and tobacco cells.

Yamada Akiyo; Saitoh Takeo; Mimura Tetsuro; Ozeki Yoshihiro

Department of Biotechnology, Faculty of Technology, Tokyo University of Agriculture and Technology, Naka-cho 2-24-16, Koganei, Tokyo, 184-8588 Japan. yamaden@cc.tuat.ac.jp

Plant & cell physiology (Japan) Aug 2002, 43 (8) p903-10, ISSN 0032-0781 Journal Code: 9430925

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/30

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14356028 PMID: 12182709

Characterization of a HKT-type transporter in rice as a general alkali cation transporter.

Golldack Dortje; Su Hua; Quigley Francoise; Kamasani Uma R; Munoz-Garay Carlos; Balderas Enrique; Popova Olga V; Bennett John; Bohnert Hans J; Pantoja Omar

Department of Biochemistry, The University of Arizona, Tucson, AZ 85721, USA.

Plant journal - for cell and molecular biology (England) Aug 2002, 31 (4) p529-42, ISSN 0960-7412 Journal Code: 9207397

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/31

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

14323221 PMID: 12139614
Cellular responses to environmental salinity in the halophilic black yeast *Hortaea werneckii*.
Petrovic Uros; Gunde-Cimerman Nina; Plemenitas Ana
University of Ljubljana, Medical Faculty, Institute of Biochemistry,
Slovenia.
Molecular microbiology (England) Aug 2002, 45 (3) p665-72, ISSN
0950-382X Journal Code: 8712028
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/32

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

13969891 PMID: 11726707
A Ca(2+)-dependent protein kinase that endows rice plants with cold- and salt-stress tolerance functions in vascular bundles.
Saijo Y; Kinoshita N; Ishiyama K; Hata S; Kyozuka J; Hayakawa T; Nakamura T; Shimamoto K; Yamaya T; Izui K
Laboratory of Plant Physiology, Graduate School of Biostudies, Kyoto University, Sakyo-ku, Kyoto, 606-8502 Japan.
Plant & cell physiology (Japan) Nov 2001, 42 (11) p1228-33, ISSN
0032-0781 Journal Code: 9430925
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/33

DIALOG(R) File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

13815161 PMID: 11483357
Cloning of peroxisomal ascorbate peroxidase gene from barley and enhanced thermotolerance by overexpressing in *Arabidopsis thaliana*.
Shi W M; Muramoto Y; Ueda A; Takabe T
Graduate School of Bioagricultural Sciences, Nagoya University, Chikusa, Nagoya 464-8601, Japan.
Gene (Netherlands) Jul 25 2001, 273 (1) p23-7, ISSN 0378-1119
Journal Code: 7706761
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/34

DIALOG(R) File 155: MEDLINE(R)
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13809783 PMID: 11387321

Mutation in PMR1, a Ca(2+)-ATPase in Golgi, confers salt tolerance in *Saccharomyces cerevisiae* by inducing expression of PMR2, an Na(+) -ATPase in plasma membrane.

Park S Y; Seo S B; Lee S J; Na J G; Kim Y J
Department of Molecular Biology, Pusan National University, Pusan 609-735, Korea.

Journal of biological chemistry (United States) Aug 3 2001, 276 (31)

p28694-9, ISSN 0021-9258 Journal Code: 2985121R

Publishing Model Print-Electronic

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/35

DIALOG(R) File 155: MEDLINE(R)

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13724485 PMID: 11378901

Cloning of glycerol-3-phosphate dehydrogenase genes (ZrGPD1 and ZrGPD2) and glycerol dehydrogenase genes (ZrGCY1 and ZrGCY2) from the salt-tolerant yeast *Zygosaccharomyces rouxii*.

Iwaki T; Kurono S; Yokose Y; Kubota K; Tamai Y; Watanabe Y
Department of Biological Resources, Faculty of Agriculture, Ehime University, Matsuyama, Ehime 790-8566, Japan.

Yeast (Chichester, England) (England) Jun 2001, 18 (8) p737-44,
ISSN 0749-503X Journal Code: 8607637

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/36

DIALOG(R) File 155: MEDLINE(R)

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13705026 PMID: 11352467

Tobacco and *Arabidopsis* SLT1 mediate salt tolerance of yeast.

Matsumoto T K; Pardo J M; Takeda S; Bressan R A; Hasegawa P M
Center for Plant Environmental Stress Physiology, Department of Horticulture and Landscape Architecture, Purdue University, West Lafayette, IN 47907-1165, USA.

Plant molecular biology (Netherlands) Mar 2001, 45 (4) p489-500,
ISSN 0167-4412 Journal Code: 9106343

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

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DIALOG(R) File 155: MEDLINE(R)

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13662227 PMID: 11299346

Salt-induced expression of the vacuolar H+-ATPase in the common ice plant is developmentally controlled and tissue specific.

Golldack D; Dietz K J

Department of Physiology and Biochemistry of Plants, Faculty of Biology, University of Bielefeld, D-33501 Bielefeld, Germany.

Plant physiology (United States) Apr 2001, 125 (4) p1643-54, ISSN 0032-0889 Journal Code: 0401224

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

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DIALOG(R)File 155: MEDLINE(R)

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13647514 PMID: 11283343

Gene expression profiles during the initial phase of salt stress in rice.

Kawasaki S; Borchert C; Deyholos M; Wang H; Brazille S; Kawai K; Galbraith D; Bohnert H J

Department of Biochemistry and Molecular Biophysics, University of Arizona, Tucson, Arizona 85721, USA.

Plant cell (United States) Apr 2001, 13 (4) p889-905, ISSN 1040-4651 Journal Code: 9208688

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/39

DIALOG(R)File 155: MEDLINE(R)

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13619137 PMID: 11244122

The salt stress-inducible protein kinase gene, Esi47, from the salt-tolerant wheatgrass *Lophopyrum elongatum* is involved in plant hormone signaling.

Shen W; Gomez-Cadenas A; Routly E L; Ho T H; Simmonds J A; Gulick P J
Centre for Structural and Functional Genomics and Department of Biology, Concordia University, 1455 de Maisonneuve Boulevard West, Montreal, Quebec, Canada H3G 1M8.

Plant physiology (United States) Mar 2001, 125 (3) p1429-41, ISSN 0032-0889 Journal Code: 0401224

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

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DIALOG(R)File 155: MEDLINE(R)

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13282823 PMID: 10022943

Molecular cloning and expression of the ARFC3 gene, a component of the replication factor C from the salt-tolerant, dimorphic yeast *Arxula adeninivorans* LS3.

Stoltenburg R; Losche O; Klappach G; Kunze G
Institut fur Pflanzengenetik und Kulturpflanzenforschung, Corrensstrasse
3, D-06466 Gatersleben, Germany.

Current genetics (UNITED STATES) Feb 1999, 35 (1) p8-13, ISSN
0172-8083 Journal Code: 8004904

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/41

DIALOG(R) File 155: MEDLINE(R)

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13278222 PMID: 10206704

Two putative MAP kinase genes, ZrHOG1 and ZrHOG2, cloned from the salt-tolerant yeast *Zygosaccharomyces rouxii* are functionally homologous to the *Saccharomyces cerevisiae* HOG1 gene.

Iwaki T; Tamai Y; Watanabe Y
Laboratory of Biochemistry, Faculty of Agriculture, Ehime University,
Matsuyama, Japan.

Microbiology (Reading, England) (ENGLAND) Jan 1999, 145 (Pt 1)
p241-8, ISSN 1350-0872 Journal Code: 9430468

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

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DIALOG(R) File 155: MEDLINE(R)

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12941394 PMID: 10889264

Biochemical evidence for two novel enzymes in the biosynthesis of 3-dimethylsulfoniopropionate in *Spartina alterniflora*.

Kocsis M G; Hanson A D
Horticultural Sciences Department, University of Florida, Gainesville,
Florida 32611, USA.

Plant physiology (UNITED STATES) Jul 2000, 123 (3) p1153-61, ISSN
0032-0889 Journal Code: 0401224

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/43

DIALOG(R) File 155: MEDLINE(R)

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12704757 PMID: 10629000

Genetic analysis of salt-tolerant mutants in *Arabidopsis thaliana*.

Quesada V; Ponce M R; Micol J L
División de Genética, Universidad Miguel Hernández, Campus de San Juan, 03550 Alicante, Spain.
Genetics (UNITED STATES) Jan 2000, 154 (1) p421-36, ISSN 0016-6731
Journal Code: 0374636
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/44

DIALOG(R)File 155: MEDLINE(R)
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12655511 PMID: 10572263
A series of protein phosphatase gene disruptants in *Saccharomyces cerevisiae*.
Sakumoto N; Mukai Y; Uchida K; Kouchi T; Kuwajima J; Nakagawa Y; Sugioka S; Yamamoto E; Furuyama T; Mizubuchi H; Ohsugi N; Sakuno T; Kikuchi K; Matsuoka I; Ogawa N; Kaneko Y; Harashima S
Department of Biotechnology, Graduate School of Engineering, Osaka University, 2-1 Yamadaoka, Suita, Osaka 565-0871, Japan.
Yeast (Chichester, England) (ENGLAND) Nov 1999, 15 (15) p1669-79,
ISSN 0749-503X Journal Code: 8607637
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/45

DIALOG(R)File 155: MEDLINE(R)
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12553525 PMID: 9869418
Alfin1, a novel zinc-finger protein in alfalfa roots that binds to promoter elements in the salt-inducible MsPRP2 gene.
Bastola D R; Pethe V V; Winicov I
Department of Microbiology, School of Medicine, University of Nevada Reno, 89557, USA.
Plant molecular biology (NETHERLANDS) Dec 1998, 38 (6) p1123-35,
ISSN 0167-4412 Journal Code: 9106343
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/46

DIALOG(R)File 155: MEDLINE(R)
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12491443 PMID: 9802015
Pleiotropic effects of the op1 regulatory mutation of yeast: its effects on growth and on phospholipid and inositol metabolism.
Jiranek V; Graves J A; Henry S A

Department of Horticulture, Viticulture and Oenology, University of Adelaide, Australia. vjiranek@waite.adelaide.edu.au
Microbiology (Reading, England) (ENGLAND) Oct 1998, 144 (Pt 10)
p2739-48, ISSN 1350-0872 Journal Code: 9430468
Contract/Grant No.: GM-19629; GM; NIGMS
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/47

DIALOG(R)File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

12481153 PMID: 9791888
Characterization of a second gene (ZSOD22) of Na^+/H^+ antiporter from salt-tolerant yeast *Zygosaccharomyces rouxii* and functional expression of ZSOD2 and ZSOD22 in *Saccharomyces cerevisiae*.
Iwaki T; Higashida Y; Tsuji H; Tamai Y; Watanabe Y
Department of Biological Resources, Faculty of Agriculture, Ehime University, Japan.
Yeast (Chichester, England) (ENGLAND) Sep 30 1998, 14 (13) p1167-74,
ISSN 0749-503X Journal Code: 8607637
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/48

DIALOG(R)File 155: MEDLINE(R)
(c) format only 2005 Dialog. All rts. reserv.

12432671 PMID: 9744098
Low-oxygen stress and water deficit induce cytosolic pyruvate orthophosphate dikinase (PPDK) expression in roots of rice, a C3 plant.
Moens A; Valcke R; Van Montagu M
Department of Genetics, Flanders Interuniversity Institute for Biotechnology (VIB), Universiteit Gent, Belgium. moensa@magellan.umontreal.ca
Plant journal - for cell and molecular biology (ENGLAND) Jul 1998, 15 (1) p89-98, ISSN 0960-7412 Journal Code: 9207397
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/49

DIALOG(R)File 155: MEDLINE(R)
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12415045 PMID: 9727364
Function and expression of a novel rat salt-tolerant protein: evidence of a role in cellular sodium metabolism.
Tsuji E; Tsuji Y; Sasaguri M; Arakawa K

Second Department of Internal Medicine, School of Medicine, Fukuoka University, Japan.

Journal of the American Society of Nephrology - JASN (UNITED STATES)
Sep 1998, 9 (9) p1574-80, ISSN 1046-6673 Journal Code: 9013836

Publishing Model Print

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Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/50

DIALOG(R) File 155: MEDLINE(R)

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12373800 PMID: 9687067

Expression of abscisic acid-responsive element-binding protein in salt-tolerant indica rice (*Oryza sativa* L. cv. Pokkali).

Gupta S; Chattopadhyay M K; Chatterjee P; Ghosh B; SenGupta D N

Department of Botany, Bose Institute, Calcutta, India.

Plant molecular biology (NETHERLANDS) Jul 1998, 37 (4) p629-37,
ISSN 0167-4412 Journal Code: 9106343

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

3/3/51

DIALOG(R) File 155: MEDLINE(R)

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11944330 PMID: 9225858

Expression of arginine decarboxylase in seedlings of indica rice (*Oryza sativa* L.) cultivars as affected by salinity stress.

Chattopadhyay M K; Gupta S; Sengupta D N; Ghosh B

Department of Botany, Bose Institute, Calcutta, India.

Plant molecular biology (NETHERLANDS) Jun 1997, 34 (3) p477-83,
ISSN 0167-4412 Journal Code: 9106343

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

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DIALOG(R) File 155: MEDLINE(R)

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11937401 PMID: 9218720

A group 3 LEA cDNA of rice, responsive to abscisic acid, but not to jasmonic acid, shows variety-specific differences in salt stress response.

Moens A; De Keyser A; Van Montagu M

Laboratorium voor Genetica, Department of Genetics, Flanders Interuniversity Institute for Biotechnology (VIB), Universiteit Gent, Belgium.

Gene (NETHERLANDS) Jun 3 1997, 191 (2) p197-204, ISSN 0378-1119
Journal Code: 7706761

Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

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11645178 PMID: 8954095

Molecular cloning of a novel rat salt-tolerant protein by functional complementation in yeast.

Tsuji E; Tsuji Y; Misumi Y; Fujita A; Sasaguri M; Ideishi M; Arakawa K
2nd Department of Internal Medicine, Fukuoka University School of
Medicine, Japan.

Biochemical and biophysical research communications (UNITED STATES) Dec
4 1996, 229 (1) p134-8, ISSN 0006-291X Journal Code: 0372516
Publishing Model Print; Erratum in Biochem Biophys Res Commun 1997 Nov
7;240(1) 244-5

Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/54

DIALOG(R)File 155: MEDLINE(R)
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11339043 PMID: 8653119

Salt regulation of transcript levels for the c subunit of a leaf vacuolar H(+) -ATPase in the halophyte *Mesembryanthemum crystallinum*.

Tsiantis M S; Bartholomew D M; Smith J A
Department of Plant Sciences, University of Oxford, UK.
Plant journal - for cell and molecular biology (ENGLAND) May 1996, 9
(5) p729-36, ISSN 0960-7412 Journal Code: 9207397

Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/55

DIALOG(R)File 155: MEDLINE(R)
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11075289 PMID: 7647298

Primary structure of the plasma membrane H(+) -ATPase from the halotolerant alga *Dunaliella bioculata*.

Wolf A H; Slayman C W; Gradmann D
Pflanzenphysiologisches Institut der Universitat, Gottingen, Germany.
Plant molecular biology (NETHERLANDS) Jul 1995, 28 (4) p657-66,
ISSN 0167-4412 Journal Code: 9106343

Contract/Grant No.: GM 15761; GM; NIGMS
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH

Main Citation Owner: NLM
Record type: MEDLINE; Completed

3/3/56

DIALOG(R) File 155: MEDLINE(R)
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10897932 PMID: 7888629

Post-transcriptional regulation of a salt-inducible alfalfa gene encoding a putative chimeric proline-rich cell wall protein.

Deutch C E; Winicov I
Department of Biochemistry, University of Nevada, Reno 89557.
Plant molecular biology (NETHERLANDS) Jan 1995, 27 (2) p411-8,
ISSN 0167-4412 Journal Code: 9106343
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
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3/3/57

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10800480 PMID: 8002016

cDNA clones for salt-inducible genes from mustard (*Brassica juncea*).
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Hindustan Lever Research Centre, Bombay.
Indian journal of biochemistry & biophysics (INDIA) Aug 1994, 31 (4)
p329-34, ISSN 0301-1208 Journal Code: 0310774
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
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3/3/58

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10472033 PMID: 8049344

Tn5-Mob transposon mediated transfer of salt tolerance and symbiotic characteristics between Rhizobia genera.
Yang S; Wu Z; Gao W; Li J
Department of Microbiology, Beijing Agricultural University, China.
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ISSN 1042-749X Journal Code: 9100855
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

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DIALOG(R) File 155: MEDLINE(R)
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09799245 PMID: 1600940

A novel methyl transferase induced by osmotic stress in the facultative halophyte *Mesembryanthemum crystallinum*.

Vernon D M; Bohnert H J

Department of Molecular and Cellular Biology, Arizona, Tucson 85721.

EMBO journal (ENGLAND) Jun 1992, 11 (6) p2077-85, ISSN 0261-4189

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Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

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DIALOG(R) File 155: MEDLINE(R)

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09622201 PMID: 1837019

Molecular cloning and sequencing of plasma membrane H(+) -ATPase gene from the salt-tolerant yeast *Zygosaccharomyces rouxii*.

Watanabe Y; Shiramizu M; Tamai Y

Department of Bioresources, Faculty of Agriculture, Ehime University.

Journal of biochemistry (JAPAN) Aug 1991, 110 (2) p237-40, ISSN 0021-924X Journal Code: 0376600

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

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DIALOG(R) File 155: MEDLINE(R)

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09290665 PMID: 2129399

Cloning of salinity stress-induced genes from the salt-tolerant nitrogen-fixing cyanobacterium *Anabaena torulosa*.

Apte S K; Haselkorn R

Department of Molecular Genetics & Cell Biology, University of Chicago, IL 60637.

Plant molecular biology (NETHERLANDS) Nov 1990, 15 (5) p723-33, ISSN 0167-4412 Journal Code: 9106343

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

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